

Knee Reconstruction – Patient information

Knee Arthroscopy

Arthroscopy is a common technique used to examine and treat problems inside the knee joint. A fibre-optic telescope, about the size of a pencil, is inserted into the knee through a small incision, allowing the surgeon to visualise structures inside the joint. A second incision is then made to pass very thin surgical instruments into the knee in order to treat the problem. The term 'arthroscopy' refers to an approach to the knee rather than the operation itself. The advantages of this form of keyhole surgery include faster healing and lower complication rates than previous open procedures. Many different operations can be carried out using this technique and the recovery time and rehabilitation may vary accordingly. I will inform you of your rehabilitation needs after your surgery.

Knee reconstruction takes approximately 60 minutes and is performed under general anaesthetic. It is therefore important to ensure you have nothing to eat or drink 6 hours prior to the anaesthetic. Regardless of the actual surgery performed, you are strongly advised to take a week off work afterwards to rest the knee. It will be possible to work from home at a desk but priority must be given to your post-op recovery. You may drive a car once you are able to use the pedals safely and perform an emergency stop. It is your responsibility to make this decision; the exact timing will depend on which side is operated on and whether or not the car has an automatic gearbox.

Ligament reconstruction

The most commonly injured knee ligament requiring surgery is the anterior cruciate ligament (ACL). If torn, the ACL itself has very limited capacity for repair, but with activity limitation, the knee can still function adequately. ACL reconstruction is indicated in patients who wish to return to cutting or impact sports, or when the knee continues to give way (instability symptoms). The ACL is reconstructed using your hamstring tendons (or part of your patella tendon) to recreate the ACL's proprioceptive and protective function.

Other knee ligaments include the posterior cruciate ligament (PCL), medial collateral ligament (MCL) and posterolateral corner (PLC) complex made up of the lateral collateral ligament (LCL) and popliteus tendon. Finally, the quadriceps tendon (thigh muscle into knee cap) and patella tendon (knee cap into shin bone) complete the extensor mechanism attachments around the knee. Each of the above tendons and ligaments can require repair or reconstruction depending on the type and chronicity of the injury. Acute repair or reconstructions with autograft (your own tendons, usually hamstrings) or synthetic grafts (LARS ligaments) each have relative advantages which need to be considered for each patient and injury.

Meniscal surgery

There are two menisci in each knee (medial and lateral). They are made of a special type of fibrocartilage and have two primary functions. They increase the contact area between the femur and tibia, especially the lateral meniscus, acting as a shock absorber during daily activities. They also help improve the stability, especially the medial meniscus, complementing the ACL ligament.

Meniscal tears in younger people (<40yo) are often the result of acute trauma in an otherwise normal meniscus. Early repair, if successful, allows the meniscus to return to its normal functions. To protect the repair during the healing phase, a brace and crutches are often required for 6 weeks. In older people, or chronic tears, the meniscus is usually sufficiently damaged that repair is less likely to be successful. In these cases, excision of the torn fragments can improve mechanical and synovitis symptoms from the tear or associated meniscal cysts. If the knee already has significant arthritis symptoms, then meniscal surgery is rarely indicated.

AFTER YOUR SURGERY

Once fully awake, the nurses will give you a cup of tea or coffee and a meal if required. A physiotherapist will then help you out of bed and assess your walking. Initially, you will be advised to use crutches although many patients are able to walk without them soon after surgery. You can go home once you are fully awake and able to walk up and down stairs without assistance. Some patients go home on the day of surgery although you may be advised to stay if your surgery is in the evening, if you take longer than expected to recover from the anaesthetic or if you need extended physiotherapy.

You will wake up with bandaging around the knee. This will be removed and replaced with a tubigrip (support bandage) prior to discharge. This should be removed at night, when washing and when icing the knee but should be worn at all other times until your swelling has fully resolved. You will have white "opside" dressings over the incisions themselves which you should leave alone. These are removed when I review the wound at your post-op appointment. The opside dressings are water-resistant but not waterproof. They will keep the wound dry if water splashes over them, but they will float off if you immerse them in water. The safest way to wash is therefore from a basin but, if the dressings are well stuck, a shower may be safe if you keep your knee out of the direct flow of the water. If the opside dressings start to peel off, purchase a large waterproof plaster from your local pharmacy and stick it over the top but do not remove the original dressings if possible.

CARE OF THE KNEE

For the first few days following surgery, you should focus primarily on reducing the swelling in the knee. Pain and stiffness after surgery are common but should resolve quickly if you are able to control the swelling. This can be achieved using the acronym RICE:

- **Rest:** Try to spend the majority of the day sitting down. You will be able to get up and walk around but you should keep this to a minimum. Long periods of standing or walking will result in increased pain and swelling which will prolong your recovery. You should try to stay at home for the first 3-4 days after the surgery. For the following 2-3 days, it is advisable to take your crutches with you when out and about to reduce the strain on the knee.
- **Ice:** Place ice directly onto the knee every 2 hours for approximately 10 minutes. The best form of ice pack is a bag of frozen peas – these conform to the shape of the knee and retain their low temperature better than commercially available ice packs. If you have delicate skin or the ice is too cold for you, roll the tubigrip back over the knee and rest the ice on top of it.
- **Compress:** Wear your tubigrip at all times except when sleeping or showering.
- **Elevate:** When sitting down, try to rest your heel on a table or another chair so it is above the level of the hip.

If you are able to tolerate anti-inflammatories such as ibuprofen (Nurofen) or diclofenac (Voltaren), taking these regularly for a few days following surgery can also help reduce the swelling. If you experience symptoms of heartburn or stomach ache, stop this medication.

It is not necessary to perform any vigorous knee exercises in the first few days after surgery. Focus initially on reducing the swelling; as you do so, the flexion in your knee should improve. Work hard on ensuring the knee comes completely straight – resting your heel on a chair or table can help ('heel hangs'). In this position, you should practice keeping the leg straight, lifting it up and holding it there for 10 seconds ('straight leg raise') approximately 10 times per hour. Your requirement for formal physiotherapy will be discussed at your post-op follow-up appointment.

POSSIBLE COMPLICATIONS OF KNEE RECONSTRUCTION

Knee reconstruction surgery is safe but all surgical procedures involve a degree of risk. Possible complications include:

Infection: This is very rare but can damage the knee permanently if it is not treated quickly. If you experience a fever or increasing knee pain and swelling after surgery, contact me or attend your local hospital Emergency department immediately.

Deep vein thrombosis: Blood clots in the leg are also rare following arthroscopy although the incidence is higher in those with a past history or family history of clots and in females taking the oral contraceptive pill. These can detach and travel to the lungs which is a serious complication. I recommended daily Aspirin 100mg for 2 weeks following the surgery, but if you are much higher risk, I will prescribe alternate medication.

Persistent bleeding: Rarely, a small blood vessel may be damaged during surgery resulting in prolonged bleeding from one or both of your wounds.

Numbness: This may occur around the incisions and usually resolves with time.

Stiffness: All patients respond differently to surgery, and some form particularly strong scar tissue. This can usually be improved with dedicated stretching exercises, however occasionally required formal surgical release.

Recurrence of instability: The hamstring ligaments used for the reconstruction are very strong; however, just like your original ACL, the reconstruction can be stretched or torn with future injury. This risk is most common in younger and more active patients. If symptomatic, this can require revision knee reconstruction.

Finally, if you have any questions with regards to your surgery or post-operative rehabilitation, please feel free to contact my secretary.